Applicant: David J. Kinning et al.

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REMARKS

Applicants thank the Examiner for the brief telephonic discussion held on May 29, 2003. The following remarks are intended to summarize the discussion.

Claims 1-3, 5-15, 18-20, 26-28, 31-35 and 38 are currently pending in this application. With this amendment, claims 5, 19 and 20 have been cancelled. Claims 1, and 6-8 have also been amended.

As seen in the amendments, claim 1 has been clarified to provide an adhesive composition having a segmented copolymer having repeating units of Formula (I)

According to this now claimed invention, each B is independently a polyvalent radical selected from a group consisting of arylene, arlkylene, alkylene, cycloalkylene, polyoxyalkylene, or mixtures thereof; each D is independently selected from the group consisting of hydrogen, an alkyl group, a cycloalkyl group, a phenyl group, a group that completes a ring structure that includes B to form a heterocycle, and mixtures thereof; each Z is independently a polyvalent radical having about 1 to about 20 carbon atoms; each Y is independently a polyoxyalkylene; m is an integer greater than zero; and a is zero or an integer greater than zero. Support for this amendment can be found in the specification at, for example, page 10 line 5 thru page 11 line 9. Claims 6, 7, and 8 have been amended to change their claim dependency from claim 5 (now cancelled) to claim 1. Applicants respectfully request that these amendments be entered. No new matter has been added by these amendments.

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Rejections under §112

Claims 19 and 20 have been rejected under 35 U.S.C. 112 as being indefinite. Both of these claims, 19 and 20, have now been cancelled, therefore rendering this rejection moot.

Rejections under §102

Claims 1, 5-15, 19, 20, 31 and 38 have been rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 3,796, 678 to Bartizal.

Claims 1, 9-15, 19, 20, 26, 28, 31, 34, and 38 have been rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 3,896,789 to Trancik.

Claims 1-3, 9-15, 19, 20, 26, 31, 34 and 38 have been rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,047,272 to Hassel et al. or U.S. Patent No. 5,049,427 to Starzewski et al.

None of the primary references (Bartizal, Trancik, Hassel et al., and Starzewski et al.) cited by the Examiner bear any similarity to the instantly claimed invention, nor do any of them provide a teaching of the pressure sensitive adhesive as now claimed.

Specifically, Bartizal is directed to polyurethane PSAs (pressure sensitive adhesives) made from highly branched, capped polyurethanes. The polymers used in the Bartizal PSAs have at least about 20% pendant groups. This is clearly different from Applicants' claimed composition that is primarily linear, *not* highly-branched. Bartizal neither teaches nor suggests a PSA as instantly claimed, whereby repeating units of the segments represented in Formula (I) shown above provide a polyurea-based adhesive composition. Applicants' compositions can be made, for example, by reacting polyisocyanates with amine-functional materials. No amine-functional materials are even described in Bartizal, therefore one skilled in the art would not have been able to achieve a polyurea-based polymer. This reference clearly does not anticipate the claimed invention nor render it obvious.

Trancik relates to a tape having a PSA layer applied thereon. The PSA layer used in the Trancik construction can be mixed with a retinoic acid, stabilizers, and solvent. Trancik teaches

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a polyurethane PSA, and cites the Bartizal reference as providing the polyurethane PSA -- see for example column 2, lines 48-54 and column 3, lines 5-12. Thus, Trancik teaches nothing more than what Bartizal has described. Hence, this reference clearly does not anticipate the claimed invention nor render it obvious.

Finally, Hassel et al. or Starzewski et al. relate to compositions that are not pressure sensitive adhesives. Hassel et al. is a laminating adhesive that require heat and pressure to achieve its adhesion properties. Starzewski et al. is a hot melt adhesive that requires high temperature and pressure to acquire it bonding abilities. Thus, neither reference teaches a pressure sensitive adhesive which are generally known to require no more than finger pressure to adhere to substrates and are tacky at room temperature. PSAs are clearly a different class of materials that neither Hassel et al. nor Starzewski et al. provide any guidance, but rather teach away from as PSAs do not require high temperature or high pressure conditions for adhesion. These references therefore do not anticipate nor render the claimed invention obvious.

Applicants respectfully request that these rejections be withdrawn.

Rejections under §103

Claims 1, 5-15, 18-20, 31 and 38 have been rejected under 35 U.S.C. 103(a) as being obvious over Bartizal and WO 98/13135 or U.S. Patent No. 5,824,748 to Kesti et al.

Claims 1-3, 5-15, 19, 20, 26-28, 31-34 and 38 have been rejected under 35 U.S.C. 103(a) as being obvious over Bartizal and Kesti et al.

Claims 1-3, 5-15, 19, 20, 26-28, 31-35 and 38 have been rejected under 35 U.S.C. 103(a) as being obvious over Bartizal and WO 96/35458 and U.S. Patent No. 6,224,949 to Wright et al.

Claims 1-3, 5-15, 19, 20, 26-28, 31-34 and 38 have been rejected under 35 U.S.C. 103(a) as being obvious over Trancik and WO 96/35458.

The addition of any of these secondary references for combination with references Bartizal or Trancik would have provided no useful guidance to a skilled artisan to modify a highly-branched polyurethane-based composition in order to achieve Applicants' claimed invention of a polyurea-based PSA.

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Kesti et al. relates to microspheres having a mixture of water insoluble polymers in polymeric microspheres, where one insoluble polymer is a solute polymer and the other is a matrix polymer. The polymers described in the examples include acid-containing polymeric material. Kesti does not reveal nor suggest any information for modifying a highly-branched polyurethane (e.g. Bartizal) to make a polyurea-based PSA. Indeed, even to one skilled in the art, combining the teaching of Kesti et al. to that of Bartizal results in a combination still laden with unfilled gaps and is insufficient to achieve the claimed polyurea-based PSA.

Teachings from "WO 98/13135" (reference should actually be referred to as WO 99/42536, as noted repeatedly in Applicant's prior communications), when combined with Bartizal also fall short in guiding a skilled artisan to achieve the polyurea-based polymer as currently claimed. WO 99/42536 may indeed describe the use of a polymeric ionic crosslinkers similar to those used in Applicants' compositions; however, the polymers provided in WO 99/42536 are not the same as the polyurea polymers instantly claimed. There is no suggestion in Bartizal to modify the composition by replacing the polymer of WO 99/42536 to be a siliconfree polyurea-based polymer as currently claimed. Thus, one skilled in the art would not have found Applicants' claimed invention obvious.

U.S. Patent No. 6,224,949 to Wright et al. teaches free radical polymerization of monomers to provide coatings on a web. Even if the teaching of this reference were combined with Bartizal, the combination would not achieve the presently claimed polyurea-based composition for at least two reasons: (1) the coatings use polyorganosiloxane polyurea segments and Applicants' claimed invention are silicone-free; and (2) Applicants' polyurea-based polymer is not made by free-radical polymerization that the reference relies upon. Furthermore, the reference in combination with Bartizal would not have provided sufficient information to a skilled artisan for either a) replacing the silicone polyurea polymers with silicone-free polyurea polymers, or b) modifying the polymerization method.

The combination of Bartizal or Trancik with WO 96/35458 and Wright et al. still fails to establish information to a skilled artisan how obtain a silicone-free polyurea-based PSA as now claimed. The composition described in WO 96/35458 includes silicone, therefore the reference in fact, teaches away from Applicants' claimed composition that is silicone-free.

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In view of the reasons discussed above, Applicants respectfully request that these rejections be withdrawn.

The claims are now in condition for allowance and early notice to that effect is respectfully requested. No fees are believed due for this reply; however, if any fees are required, please apply any other charges or credits to Deposit Account No. 06-1050.

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Respectfully submitted,

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